

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An isolated human antibody[[,]] or antigen-binding fragment thereof[[,]] that specifically binds to human T cell, immunoglobulin domain and mucin domain 1 (TIM-1), wherein said antibody or antigen-binding fragment thereof specifically binds an epitope on TIM-1 comprising the amino acid sequence PMPLPRQNHEPVAT (SEQ ID NO: 87).
2. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said TIM-1 comprises the amino acid sequence shown in SEQ ID NO:54 wherein said antibody or antigen-binding fragment thereof comprises a heavy chain amino acid sequence comprising three complementarity determining regions (CDRs) and a light chain amino acid sequence comprising three CDRs, where the three heavy chain CDRs and the three light chain CDRS are selected from:
 - (a) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFIFSRYGMH (SEQ ID NO: 156), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKLYADSVKG (SEQ ID NO: 157), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFDY (SEQ ID NO: 158), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSRSLLSDDGNTYLD (SEQ ID NO: 159), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence TLSYRAS (SEQ ID NO: 160), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQRVEFPIT (SEQ ID NO: 161);
 - (b) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFTNYGLH (SEQ ID NO: 138), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence

- VIWYDGSHKFYADSVKG (SEQ ID NO: 139), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DLDY (SEQ ID NO: 140), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQSVSNNYLA (SEQ ID NO: 141), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence GASSRAT (SEQ ID NO: 142), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence QQYGSSLPLT (SEQ ID NO: 143);
- (c) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSSYGMY (SEQ ID NO: 144), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSKYADSVKG (SEQ ID NO: 145), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DFYDSSRYHYGMDV (SEQ ID NO: 146), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLLSDDGNTYLD (SEQ ID NO: 147), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence TVSYRAS (SEQ ID NO: 148), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQRIEFPIT (SEQ ID NO: 149);
- (d) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GGSISSDGYYWS (SEQ ID NO: 150), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence YIYYSGSTFYNPSLKS (SEQ ID NO: 151), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence ESPHSSNWYSGFDC (SEQ ID NO: 152), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQSIGSRLH (SEQ ID NO: 153), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence YASQSFS (SEQ ID NO: 154), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence HQSSNLPFT (SEQ ID NO: 155);

- (e) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSRYGMH (SEQ ID NO: 162), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKLYADSVKG (SEQ ID NO: 157), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYDNRHHWGFDY (SEQ ID NO: 158), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQSIYSYLN (SEQ ID NO: 163), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence AASSLOS (SEQ ID NO: 164), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence QOSYSTPPT (SEQ ID NO: 165);
- (f) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFRSYGMH (SEQ ID NO: 166), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKYYDSVKG (SEQ ID NO: 167), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYDNRHHWGFDY (SEQ ID NO: 158), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQGIRNDLA (SEQ ID NO: 168), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence LQHNSYPPTS (SEQ ID NO: 169);
- (g) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSSYGMH (SEQ ID NO: 170), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSHKYYADSVKG (SEQ ID NO: 171), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYDTSRHHWGFDC (SEQ ID NO: 172), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLLDSEDGNTYLD (SEQ ID NO: 173), a sequence that is at least 90%

- identical to a light chain CDR2 comprising the amino acid sequence TLSHRAS (SEQ ID NO: 174), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQRVEFPIT (SEQ ID NO: 161);
- (h) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSNAWMT (SEQ ID NO: 175), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence RIKRRTDGGTTDYAAPVKG (SEQ ID NO: 176), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence VDNDVDY (SEQ ID NO: 177), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLLHSNGYNLYLD (SEQ ID NO: 178), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence LGSNRAS (SEQ ID NO: 179), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQALQTPLT (SEQ ID NO: 180);
- (i) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GGSVSSGGYYWS (SEQ ID NO: 181), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence FIYYTGSTNYNPSLKS (SEQ ID NO: 182), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYDWSFHFDY (SEQ ID NO: 183), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQGIRNDLG (SEQ ID NO: 184), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence AASSLOS (SEQ ID NO: 164), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence LQHNSYPLT (SEQ ID NO: 185);
- (j) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSNAWMT (SEQ ID NO: 175), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence RIKRKTGGTTDYAAPVKG (SEQ ID NO: 186), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence VDNSG DY (SEQ ID NO: 187), a sequence that is at least 90% identical to a light

- chain CDR1 comprising the amino acid sequence RSSQSLHSNNGNYLD (SEQ ID NO: 178), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence LGSNRAS (SEQ ID NO: 179), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQALQTPLT (SEQ ID NO: 180);
- (k) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFTNYWMS (SEQ ID NO: 188), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence NIQQDGSEKYYVDSVRG (SEQ ID NO: 189), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence WDY (SEQ ID NO: 190), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSOSLVHSDGNTYLN (SEQ ID NO: 191), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence MISNRFS (SEQ ID NO: 192), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQATESPQT (SEQ ID NO: 193); and
- (l) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSTYSMN (SEQ ID NO: 194), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence YIRSSTSTIYYAESLKG (SEQ ID NO: 195), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DFDY (SEQ ID NO: 196), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSOSLVHSDGNTYLN (SEQ ID NO: 197), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence KISTRFRS (SEQ ID NO: 198), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQTTQIPQIT (SEQ ID NO: 199).

3. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said antibody is a monoclonal antibody.
4. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said antigen-binding fragment comprises a Fab, Fab', F(ab')₂, or Fv fragment of said antibody.
5. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said antibody is a single chain antibody.
6. (Currently Amended) The antibody[[,]] or antigen-binding fragment[[,]] of claim 1, wherein said antibody or antigen-binding fragment is associated with a pharmaceutically acceptable carrier or diluent.
7. (Currently Amended) The antibody[[,]] or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment is conjugated to a therapeutic agent.
8. (Currently Amended) The antibody[[,]] or antigen-binding fragment of claim 7, wherein the therapeutic agent is a toxin.
9. (Currently Amended) The antibody[[,]] or antigen-binding fragment of claim 7, wherein the therapeutic agent is a radioactive isotope.
10. (Currently Amended) The antibody or antigen-binding fragment of claim 7, wherein the therapeutic agent is a chemotherapeutic agent.

11. (Currently Amended) A human antibody[[,]] or antigen-binding fragment thereof[[,]] that competes for binding with ~~an~~ a human antibody that binds to human TIM-1 and comprises a heavy chain amino acid sequence and a light chain amino acid sequence selected from the group consisting of:

- (a) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 26, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 28;
- (b) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 46, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 48;
- (c) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 34, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 36;
- (d) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 42, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 44;
- (e) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 18, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 20;
- (f) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 38, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 40;
- (g) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 30, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 32;
- (h) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 10, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 12;

- (i) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 2, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 4;
- (j) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 22, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 24;
- (k) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 6, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 8;
- (l) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 14, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 16; and
- (m) a sequence that is at least 90% identical to the heavy chain amino acid sequence of SEQ ID NO: 50, and a sequence that is at least 90% identical to the light chain amino acid sequence of SEQ ID NO: 52.

12. (Currently Amended) A hybridoma cell line producing the antibody[[],] or antigen-
binding fragment[[],] of claim 1.

13. (Withdrawn) A transformed cell comprising a gene encoding the antibody, or binding
fragment, of claim 1.

14. (Withdrawn) The transformed cell of claim 13, wherein the cell is a Chinese hamster
ovary (CHO) cell.

15. (Withdrawn) A method of inhibiting cell proliferation associated with the expression of
TIM-1, comprising treating cells expressing TIM-1 with an effective amount of a human
antibody, or binding fragment thereof, that specifically binds to T cell, immunoglobulin domain
and mucin domain 1 (TIM-1).

16. (Withdrawn) The method of claim 15, wherein the method is performed in vivo.
17. (Withdrawn) The method claim 16, wherein the method is performed on a mammal.
18. (Withdrawn) The method of claim 17, wherein the mammal is a human.
19. (Withdrawn) The method of claim 17, wherein the mammal suffers from a cancer involving epithelial cell proliferation.
20. (Withdrawn) The method of claim 19, wherein the cancer comprises a lung, colon, gastric, kidney, renal, prostate or ovarian carcinoma.
21. (Withdrawn) A method of effectively treating renal cancer comprising: identifying an animal in need of treatment for renal cancer; administering to said animal a therapeutically effective dose of the antibody of claim 1.
22. (Withdrawn) A method of effectively treating ovarian cancer comprising: identifying an animal in need of treatment for ovarian cancer; administering to said animal a therapeutically effective dose of the antibody of claim 1.
23. (Currently Amended) An article of manufacture comprising a container, a composition contained therein, and a package insert or label indicating that the composition can be used to treat cancer characterized by the overexpression of TIM-1, wherein the composition comprises the antibody[[.]] or antigen-binding fragment[[.,]] of claim 1.
24. (Original) The article of manufacture of claim 23, wherein the cancer is a lung, colon, gastric, kidney, renal, prostate or ovarian carcinoma.

25. (Currently Amended) An assay kit for the detection of TIM-1 in mammalian tissues or cells in order to screen for lung, colon, gastric, kidney, renal, prostate or ovarian carcinomas, the TIM-1 being an antigen expressed by lung, colon, gastric, kidney, renal, prostate or ovarian carcinomas, the kit comprising [[an]] the anti-TIM-1 antibody or antigen-binding fragment thereof of claim 1 that binds the antigen protein and means for indicating the reaction of the antibody with the antigen, if present.

26. (Currently Amended) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is a monoclonal antibody.

27. (Currently Amended) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof that binds the antigen is labeled.

28. (Currently Amended) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is an unlabeled first antibody or antigen-binding fragment thereof and the means for indicating the reaction comprises a labeled second antibody that is anti-immunoglobulin.

29. (Currently Amended) The assay kit of claim 27, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof that binds the antigen is labeled with a marker selected from the group consisting of a fluorochrome, an enzyme, a radionuclide and a radiopaque material.

30. (Original) The assay kit of claim 28, wherein the second antibody is labeled with a marker selected from the group consisting of a fluorochrome, an enzyme, a radionuclide and a radiopaque material.

31. - 32. (Cancelled)

33. (Currently Amended) The isolated human antibody or antigen-binding fragment of claim 22 claim 2, wherein said antibody binds to human TIM-1 with a Kd between 10⁻⁷ and 10⁻⁴ M.

34. (New) The isolated antibody or antigen-binding fragment of claim 1, wherein said antibody or antigen-binding fragment comprises a heavy chain amino acid sequence and a light chain amino acid sequence selected from the group consisting of:

- (a) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 26, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 28;
- (b) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 46, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 48;
- (c) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 34, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 36;
- (d) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 42, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 44;
- (e) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 18, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 20;
- (f) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 38, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 40;
- (g) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 30, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 32;
- (h) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 10, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 12;
- (i) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 2, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 4;

- (j) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 22, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 24;
- (k) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 6, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 8;
- (l) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 14, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 16; and
- (m) a sequence that is at least 90% identical to the heavy chain amino acid sequence of SEQ ID NO: 50, and a sequence that is at least 90% identical to the light chain amino acid sequence of SEQ ID NO: 52.